Amendment dated March 1, 2010 Amendment submitted with RCE

# REMARKS

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Upon entry of the instant amendment, claims 1, and 3-24 will remain pending in the above-identified application and stand ready for further action on the merits.

In this Amendment, claim 1 has been further amended. Support for the amendments made herein to claim 1 can be found at page 16, line 13 to page 17, line 23 of the present specification, which discloses as follows:

... As examples of them, mention may be made of a cyclic phosphazene compound shown by the following formula (2) and/or a chain phosphazene compound shown by the following formula (3).

$$Y = \begin{bmatrix} X \\ P = N \end{bmatrix}_{m} Z$$

$$\vdots$$

$$\vdots$$

The phosphazene compounds preferably contain 95% by weight or more of the phosphazene compounds having the structures of the above formulas (2) and (3) bused on the total weight of the phosphazene compounds of the component (B). [0021]

In the formulas (2) and (3), n is an integer of 3-25, and m is an integer of 3-10000. The substituents X are independently an alkyl group of 1-6 carbon atoms, an aryl group of 6-11 carbon atoms, a fluorine atom, an aryloxy group having a substituent represented by the formula (4):

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$$R_1$$
  $R_2$   $R_3$   $R_4$   $R_4$   $R_4$ 

(in the formula,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  independently represent a substituent selected from the group consisting of hydrogen atom, fluorine atom, an alkyl group of 1-5 carbon atoms, an alkoxy group of 1-5 carbon atoms, phenyl group, and a hetero atom-containing group), a naphthyloxy group, an alkoxy group of 1-6 carbon atoms, and an alkoxy-substituted alkoxy group (a part or all of hydrogen atoms on the substituents may be substituted with fluorine). Furthermore, Y in the formula represents  $-N=P(O)(X)_3$ , and Z represents  $-P(X)_4$  or  $-P(O)(X)_3$ .

Accordingly, the present amendment to claim 1 does <u>not</u> introduce new matter into the application as originally filed. As such entry of the instant amendment and favorable action on the merits is earnestly solicited at present.

## Claim Rejection under 35 U.S.C. § 103(a)

Claims 1 and 3-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakacho et al. WO'518 (WO 00/09518) in view of Kao US'546 (US 4.065.546).

Reconsideration and withdraw the above outstanding rejections is respectfully requested based on the following considerations.

#### Legal Standard for Determining Prima Facie Obviousness

M.P.E.P. § 2141 sets forth the guidelines in determining obviousness. First, the USPTO has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17,

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148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

- (a) determining the scope and content of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue:
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating any evidence of secondary considerations.

Graham v. John Deere, 383 U.S. 1, 17, 148 USPO 459, 467 (1966).

Second, the USPTO has to provide some rationale for determining obviousness. MPEP § 2143 sets forth some rationales that were established in the recent decision of KSR International Co. v Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007). Exemplary rationales that may support a conclusion of obviousness include:

- (a) combining prior art elements according to known methods to yield predictable results;
- (b) simple substitution of one known element for another to obtain predictable results:
- (c) use of known technique to improve similar devices (methods, or products) in the same way;
- (d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (e) "obvious to try" choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success
- (f) known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other

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market forces if the variations are predictable to one of ordinary skill in the art:

(g) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

As the M.P.E.P. directs, all claim limitations must be considered in view of the cited prior art in order to establish a prima facie case of obviousness. See M.P.E.P. § 2143.03.

### Incorporation-by-Reference

Applicants incorporate-by-reference herein, remarks set forth at pages 8-14 of the prior filed reply of July 24, 2009, and the Appendix I "Supplemental Experimental Data" (7 pages) that was enclosed with the reply of July 24, 2009. The Examiner is respectfully requested to review the prior filed reply at this time, and especially the Appendix I "Supplemental Experimental Data" inasmuch as the same is pertinent to a consideration of the patentability of the instant invention as claimed, and is moreover discussed herein below.

#### Distinctions over the Cited Art

The USPTO takes the position that because Kao US'546 discloses a phosphazene compound containing more than about 60% by weight of cyclic trimers useful in flame retardant composition, the reference could remedy the deficiency of Nakacho et al. WO'518 so as to arrive at the instant invention.

However, it is submitted that a person skilled in the art could not make the invention of the instant claim 1 as amended in the above manner, by combining the teaching of Nakacho et al. WO'518 with that of Kao US'546.

In particular, Kao US'546 relates to a process for producing high cyclic chlorophosphazene oligamers. That is, Kao US'546 is only directed to cyclic chlorophosphazene compounds. Because a halogen-containing compound such as cyclic chlorophosphazene compounds has lowered heat stability, the use of such a compound as flame retardant may cause corrosion of a mold due to decomposed gas generated from the compound during molding process.

In consideration of the disadvantage caused by a halogen-containing compound, the instant claim 1 has been amended to limit the phosphazene compound of component (B) to one(s) selected from the cyclic and chain phosphazene compounds represented by the above formulas so that those alternatives do <u>not</u> include such a halogen-containing compound.

Kao US'546 does <u>not</u> disclose, teach or suggest the specific cyclic and chain phosphazene compounds represented by the above formulas.

Accordingly, Kao US'546 as well as Nakacho et al. WO'518 never provides any hint or suggestion to an advantages effect about the improvement of processability (i.e. excellent extrudability and releasability) of a flame retardant composition by using component (B) together with component (A) as required in the amended claim 1.

In this respect, the USPTO's is respectfully reminded that such an unexpectedly advantageous effect on the processability in the invention was sufficiently demonstrated by way of comparison experiments submitted as an attachment to the July 24, 2009 reply to the previous Office Action (i.e., see Appendix I "Supplemental Experimental Data" that was submitted with the July 29, 2009 reply).

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Accordingly, the USPTO is respectfully requested to review pages 8-14 of the prior reply

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of July 24, 2009, and even more particularly, the Appendix I "Supplemental Experimental

Data" submitted therewith, inasmuch as the same clearly supports the patentability of instantly

pending claims 1 and 3-24 over the cited art of record.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully

requested to issue a Notice of Allowance clearly indicating that each of the pending claims 1 and

3-24 is allowable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present

application, the Examiner is respectfully requested to contact John W. Bailey, Reg. No. 32,881 at

the telephone number of the undersigned below, to conduct an interview in an effort to expedite

prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies

to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional

fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: March 1 2010

Respectfully submitted,

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